

NASA'S MARS SURVEYOR PROGRAM: 1996 - 2005

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Mars Surveyor is a continuing program of Mars exploration employing investigations conducted from lander and orbiting platforms. The program focuses on the themes of life, climate and resources. These themes are connected by the common thread of water on Mars. From the perspective of research disciplines, studies of the past and present atmosphere of Mars form a central element of Mars Surveyor. The first mission in the program is the Mars Global Surveyor (MGS), an orbiter to be launched in 1996 which recovers much of the science lost with the failure of Mars Observer. MGS has a strong component of atmospheric science. In the 1998 opportunity, a lander will be placed on the layered terrain of the south polar region of Mars. Its investigations focus on understanding the form, quantity and behavior of surface volatiles. In orbit an atmospheric sounder and camera will map the structure of the atmosphere, and the source and sinks of volatiles. This mission initiates the US/Russian Mars Together Program. Mars Surveyor mission plans also include an orbiter and lander launched in 2001 and a joint NASA/ESA mission which would, in 2003, provide a small network of three landers, carrying meteorology packages, supported by an orbiter carrying an atmospheric sounder. Experiments on landers in the 2001 or 2003 opportunities may include measurements of the abundances of minor, trace and isotopic gases. The return of a sample from the surface of Mars is planned for 2005. It is probable that samples of the atmosphere and perhaps water bearing minerals will be returned in this mission.

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4. N/A

5. Oral

6. No